REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Applicant wishes to thank Examiners Livedalen and Luu for the courtesy of an interview on October 24, 2006, at which time the outstanding Office Action was discussed, as were possible claim amendments. Although no agreement was reached, the present response includes amendments discussed with the Examiners at that time.

Claims 1-3, 5, 6, 11, 17 and 18 were rejected under 35 U.S.C. § 103 as being obvious over U.S. patent publication 2001/0008395 (Yamamoto et al) in view of U.S. patent 6,127,783 (Pashley et al). According to the Office Action, Yamamoto et al discloses all of the features of the rejected claims except for the plurality of light source elements for emitting different wavelengths of light and a light mixer for mixing the light emitted by the plurality of light source elements, but that these features are suggested in Pashley et al. Nonetheless, it is respectfully submitted that the amended claims define over any combination of the above references.

Based upon the aforementioned interview, all of the claims have been amended to recite that the temperature control means includes a cooling device. Basis for the cooling device is found, e.g., at page 16, lines 15-19. The claims have also been amended to recite that the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means. Basis for this is evident from Figures 2 and 5 which illustrate the temperature control section 207 heating the light source 106 independently of the control by the control section 202. Finally, the claims now recite that the light source unit is flat. Basis for this is evident from Fig. 1.

As was explained during the interview, a light source unit according to the invention includes a temperature control means for keeping the light source at a substantially constant temperature, and a light source control means for controlling the luminance of each of the

plurality of light source elements based upon values detected by a light detector, so that the light source unit has substantially constant chromaticity. Because the temperature control means controls the temperature of the light source independently of the control of the light source by the light source control means, one can select both light intensity and chromaticity using the two independent controls.

This may be distinguished from a device such as Yamamoto et al in which light intensity and chromaticity are tied together. Yamamoto et al intends to provide an image display device that achieves satisfactory color matching for a transmitted image irrespective of variations in the environmental conditions under which the image is observed (paragraph [0017]). According to Yamamoto et al "by controlling the backlight in such a way that the lamp temperature is kept constant, it is possible to obtain not only constant brightness ... but also constant chromaticity" (paragraph [0058]). To this end, Yamamoto et al provides a temperature sensor 12 for the lamp 11 and controls the lamp in such a way that its surface temperature is kept constant. "In this way ... it is possible to correct brightness *or* chromaticity through voltage control of the lamp 11" (paragraph [0061]).

It is thus evident that while Yamamoto et al mentions controlling the backlight in such a way that the lamp temperature is kept constant, what is meant by this is controlling the degree of heating of the lamp 11 by controlling the voltage to the lamp. There is no teaching or suggestion of a cooling device for keeping the lamp at constant temperature.

Additionally, Yamamoto et al teaches that either brightness or chromaticity is controlled by setting the voltage of the lamp 11. Since there is no disclosure of a device for keeping the lamp 11 at a constant temperature other than adjusting the control of the voltage to the lamp, one cannot independently select both chromaticity and light intensity.

Pashley et al was only cited to teach a plurality of light source elements for emitting different wavelengths of light and a light mixer for mixing the light emitted by the plurality

of light source elements, and so cannot provide a teaching for overcoming the shortcomings of Yamamoto et al. Claims 1-3, 5, 6, 11, 17 and 18 therefore define over these references.

Claims 15, 16, 19 and 20, which further recite a heating device in the temperature control means, were rejected under 35 U.S.C. § 103 as being obvious over the above references plus U.S. patent 5,406,172 (Bennett). As was discussed during the interview, Bennett discloses that a laser diode 14 for a fiber optic gyro (IFOG) may be provided with a heater 40 in order to rapidly heat the diode during startup. Additionally, Bennett describes that the "automatic power control" typically used in regulating the light level of such a laser diode can produce a change in the wavelength of the laser light as the current varies, which may cause unacceptable errors in the performance of the fiber optic gyro (col. 1, lines 22-34). Bennett therefore proposes operating the light source with automatic current control but using a heater to maintain the temperature of the laser diode *above* its normal ambient temperature (column 2, lines 3-6). "In an application such as the IFOG, where the light source is normally operated at a constant, *elevated* temperature, the control circuit provides a lower current during warm-up to ensure a prompt, usable, and non-excessive light output signal. The temperature of the light source is used to control the light source intensity during the stabilization" (col. 2, lines 13-19).

Thus, while Bennett discloses the use of a heater to raise the temperature of a light emitting diode, this would not suggest a separately controlled heater for the lamp 11 in Yamamoto et al because Bennett is not analogous prior art. Prior art references can only be combined to the extent that they represent analogous prior art, i.e., prior art which presents similar problems to the would-be inventor. MPEP § 2141.01(a). The light source in Yamamoto et al is used for backlighting a liquid crystal panel, and the problem presented to the would-be inventor is one of accurate reproduction of the color image (Yamamoto et al, paragraph [0004]). Bennett, on the other hand, is directed to a laser diode for a fiber optic

gyro, which is not flat and must have a constant wavelength in order for the gyro to accurately function. The change in wavelength which accompanies temperature changes is described by Bennett as causing unacceptable errors in the performance of the gyro, which has no relation to the problem of accurate reproduction of the color image in a display. Therefore one skilled in the art would not look to Bennett for suggestions relating to modifications of the temperature control of the lamp 11 in the display of Yamamoto et al.

In any case, Bennett teaches that the heater 40 is provided in order to heat the laser diode to a temperature above its normal temperature. Bennett does not disclose the use of a cooling device in its inventive apparatus and, indeed, a cooling device would be contrary to the object in Bennett of maintaining the temperature of the laser diode *above* its normal ambient temperature. Thus, irrespective of the non-analogousness of Bennett, one skilled in the art would not have been motivated by Bennett to have provided Yamamoto et al with a temperature control means including both a heating device *and a cooling device* for keeping the lamp 11 at a constant temperature, as is now recited in the claims.

It is noted that Claims 11 and 18 recite a display device including a display panel for displaying images by controlling light emitted by a light source. These claims also recite that the temperature control means includes a cooling device, and that the temperature control means controls the temperature of the light source independently of the control of the luminance of the light source by the light source control means, and so these claims define over the cited prior art for the reasons noted above.

Applicant therefore believes that the present application is in a condition for allowance and respectfully solicits an early Notice of Allowability.

Respectfully submitted,

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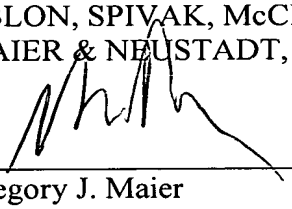

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